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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,208	09/23/2004	Hoo-Shik Kim	5204-055	7421

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EXAMINER

GABOR, OTILIA

ART UNIT PAPER NUMBER

2884

DATE MAILED: 09/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/509,208

Applicant(s)

KIM, HOO-SHIK

Examiner

Otilia Gabor

Art Unit

2884

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 9 is/are rejected.
- 7) ☒ Claim(s) 5-8 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>09/23/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art (see Fig.1 and pages 1-2) and further in view of Koppensteiner (US 4,175,825) or Neil (US 6,480,681 and US 5,920,426) or Loy (US 4,636,044).

Regarding claims 1-3 the admitted prior art discloses an image intensifier camera comprising a fluoroscopic imaging optical system comprising a front lens group (21), an aperture stop (22), a rear lens group (23), an image pickup device (32), and a signal processing circuit (40). The prior art fails to disclose an image inverse prism that is rotatably installed between the front and rear lens groups and which reflects the light incident thereto a plurality of times and which outputs an image by rotating the original image. Koppensteiner, Neil and Loy disclose an imaging camera comprising an optical system that comprises a front and rear lens group (11, 13 in Koppensteiner; L2, L3, L4 in Loy; 1, 2, G2 in Neil) and in between the lens groups a rotatable Pechan inverse prism (4 in Koppensteiner; 13 and G1 in Neil; P in Loy) which prism reflects the incident light beam a plurality of times and outputs a mirror image by rotating an original image and inverting the left and right sides of the original image or the rotated original image. It would have been obvious to one having ordinary skill in the art at the time the

invention was made to include the Pechan inverse prism of Koppensteiner or Neil or Loy into the prior art optical system because a Pechan prism will effectively increase the optical path length for better image focusing and because it has the ability to properly orient the image and correctly orienting the image for viewing without altering the optical axis and without affecting the image quality, and because using a Pechan prism allows for a compact and versatile optical system. When the Pechan prism is used the image pickup device converts the mirror image back to the original image.

Regarding claims 4, 9 Koppensteiner, Neil, Loy discloses that the Pechan prism has an input and an output window the planes of which are perpendicular to an optical axis (see Figs.1, 2 in Koppenstiner; Fig.13 in Neil 1; Fig.2A in Neil 2; Fig.2a in Loy).

Allowable Subject Matter

3. Claims 5-8, 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter: There is no evidence in the prior art searched of an image intensifier camera including an optical system where the distance between the front and rear lens groups equals the cumulative optical path length of the Pechan image inverse prism.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Otilia Gabor whose telephone number is 571-272-2435. The examiner can normally be reached on Monday-Friday between 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Otilia Gabor
Primary Examiner
Art Unit 2884


OTILIA GABOR
PRIMARY EXAMINER